

REMARKS

This amendment is responsive to the Office Action mailed September 17, 2008. Reconsideration and allowance of the claims 1-27 are requested.

Status of the claims

The Office Action reports examination of claims 1-27.

Claims 1-7, 9, 11, 12, 17-24, and 27 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Richards et al., U.S. Pat. No. 5,550,472.

Claims 8, 10, 13-16, 25, and 26 are indicated as containing allowable subject matter.

Claim amendments

Claims 1, 2, and 7 are canceled.

Claim 8 is placed into independent form including all limitations of base claims 1 and 7. Dependent **claims 3, 4, and 9-12** are placed off of claim 8.

Claim 14 is placed into independent form including all limitations of base claims 1 and 7.

Claims 17-18 are canceled.

Claim 19 is placed into independent form including all limitations of canceled base claim 18.

The dependency of **claim 26** is moved from canceled claim 18 to newly independent claim 19. Applicants note that this also provides antecedent basis for recitation in the preamble of claim 26 of a molding operation.

Independent **claim 27** is canceled.

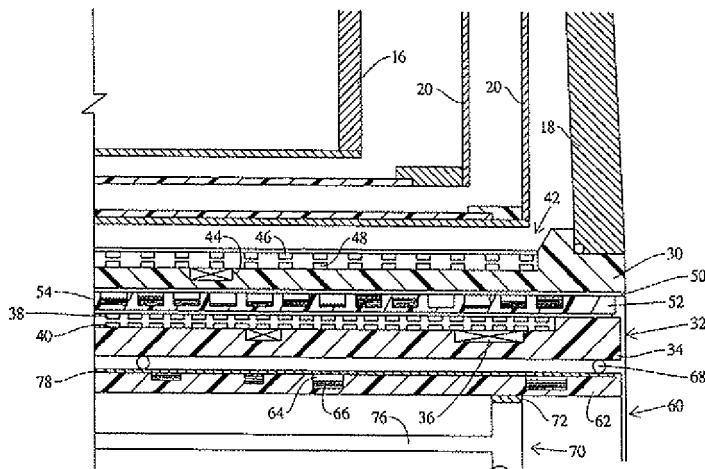
New claim 28 parallels dependent claim 15 but depends from claim 8.

New claims 29-33 parallel various already-presented dependent claims, but each of claims 29-33 depend from claim 15.

The claims present patentable subject matter and should be allowed

Claims 8 and 14 are each indicated as containing allowable subject matter. These claims have been placed into independent form including all limitations of the base claims.

Dependent claims 3 and 29 each recite the first distance (corresponding to the first set of shims) equals the third distance (corresponding to the radio frequency coil). The Office Action rejects claim 3 with citation to Richard's disclosure: "A radio frequency coil assembly (70) is mounted inside the inner surface of the shimming coil assembly (62)." Richard col. 5 lines 27-28. However, this discloses the radio frequency coil is at a smaller radius than the shims (66) of the shimming assembly (62), i.e. the radio frequency coil is inside the inner surface of the shimming coil assembly. This is consistent with the Figures of Richard:



Richard abstract figure

The radio frequency coil (70, 72) is illustrated as being inside the innermost radius of the shim assembly (62, 66). Accordingly, it is respectfully submitted that Richard does not disclose or fairly suggest the first and third radii being equal.

Dependent claims 11 and 33 each recite the plastic encapsulation is made of a polyetherimide thermoplastic. The Office Action rejects claim 11 with citation to Richard's disclosure of a "plastic/epoxy/thermoplastic encapsulation (98)." Office Action at page 3. Richard discloses "An epoxy matrix (98) insulates the turns of the fine wire from each other." Richard col. 6 lines 32-34. It is respectfully submitted that this does not disclose the polyetherimide thermoplastic recited in claims 11 and 33.

Claim 19 recites a method of making a magnetic resonance scanner including (among other elements) rigidly positioning a first set of shims inside a main magnet assembly at about a first distance relative to a cylinder axis of the main magnet assembly by molding a plastic material around the first shims and bonding the molded plastic material to a generally cylindrical former.

The Office Action treats claims 19-23 as product-by-process claims. However, claims 19-23 are method claims, not product-by-process claims. A product-by-process claim would take the form "a magnetic resonance scanner made by a method including:...." or something equivalent, in which case the provisions of MPEP § 2113 would apply. Applicants respectfully submit that the Office Action has improperly disregarded the method limitations recited in method claims 19-23.

Regarding claim 19, the Office Action alleges that Richard discloses molding a plastic material (98) around the first shims (66/96) and bonding the molded plastic material to a generally cylindrical cylinder (62). For support, the Office refers only to the drawings (Figs. 1, 2, 8, and 9), and cites no text in Richards describing molding and bonding operations.

Respecting Fig. 8, Richard discloses segmented ferrous rings defined by circumferentially aligned pockets (92) of trays (94) that are inserted longitudinally into the dielectric former (62). Ferrous plates are loaded into the pockets (92) to define circumferential shim rings. Richard col. 6 lines 23-29. There is no mention of either a molding operation or a bonding operation.

Respecting Fig. 9, Richard discloses a submillimeter ferrous wire (96) is wound on the dielectric cylinder or in the groove (64) in a tightly packed bundle, and an epoxy matrix (98) insulates the turns of the fine wire from each other. It is respectfully submitted that this does not disclose or fairly suggest bonding the molded plastic material to a generally cylindrical former.

Accordingly, it is respectfully submitted that Richard does not disclose or fairly suggest claim 19. Claims 20-23 recite further, more specific, method operations that are also not disclosed or fairly suggested by Richard.

Based at least on the foregoing, it is respectfully submitted that claims 3-6, 8-16, 19-26, and 28-33 present patentable subject matter. Accordingly, Applicants respectfully request allowance of claims 3-6, 8-16, 19-26, and 28-33.

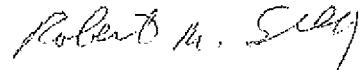
CONCLUSION

For the reasons set forth above, it is submitted that claims 3-6, 8-16, 19-26, and 28-33 (that is, all claims as set forth herein) present patentable subject matter. Accordingly, an early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned at (216) 861-5582.

Respectfully submitted,

FAY SHARPE LLP



Thomas E. Kocovsky, Jr.
Reg. No. 28,383
Robert M. Sieg
Reg. No. 54,446
1100 Superior Avenue
Seventh Floor
Cleveland, OH 44114-2579
(216) 861-5582